Recombinant CLC6A protein (His tag)

Catalog Number	547488
Synonyms	C-type lectin superfamily member 10; Dendritic cell-associated C-type lectin 2; DC-associated C-type lectin 2; Dectin-2
Species	Human
Expression System	E. coli
Accession	Q6EIG7
Molecular Weight	Predictes a molecular mass of 21.10 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	42-209
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 42-209 aa (Q6EIG7) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human CLEC6A (C-type Lectin Domain Family 6 Member A) Fragment (aa 42-209) is a high-purity protein encompassing the complete C-type lectin domain (aa 86-203). This fragment serves as an essential tool for studying calcium-dependent pattern recognition in innate immunity, particularly in response to fungal pathogens like Candida albicans. CLEC6A, also known as Dectin-2, is a transmembrane C-type lectin that functions as a pattern recognition receptor in the innate immune system. It specifically binds alpha-mannans on Candida albicans hyphae and other pathogens through its calcium-dependent lectin domain. Upon ligand binding, CLEC6A initiates signaling cascades involving SYK, CARD9, and NF-κB, driving antigen-presenting cell maturation and shaping T-helper cell responses. The protein is located on the cell membrane as a single-pass type II membrane protein and also recognizes allergens from house dust mites, fungi, and Schistosoma mansoni egg components, influencing adaptive immune responses and inflammatory mediator production.